

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A process for treating a chromate waste liquid containing an organic acid component, said process comprising:

adding a chromium precipitation accelerating agent comprising at least one of a calcium component and a magnesium component and capable of increasing the pH of said chromate waste liquid to a pH of 9 or higher, to said chromate waste liquid; and

~~adjusting said chromate waste liquid to having a first pH of 9 or higher, thereby precipitating a chromium component from said chromate waste liquid and thereby reducing a concentration of a dissolved chromium component of said chromate waste liquid; thereby increasing pH of said chromate waste liquid to have a first pH of 9 or higher and thereby precipitating a chromium component from said chromate waste liquid.~~

2. (original): A process according to claim 1, wherein said chromium precipitation accelerating agent comprises at least one of a calcium-containing inorganic compound and a magnesium-containing inorganic compound.

3. (original): A process according to claim 1, wherein said chromium precipitation accelerating agent comprises at least one compound selected from the group consisting of Ca(OH)₂, CaCl₂ and MgCl₂.

4. (canceled).

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5. (canceled).
6. (original): A process according to claim 1, wherein, prior to said adding, a chromium concentration of said chromate waste liquid is from 10 to 1,000 ppm by weight.
7. (original): A process according to claim 1, wherein said chromium precipitation accelerating agent comprises CaCl_2 and is added to said chromate waste liquid such that calcium of said CaCl_2 is in an amount of 500-1,000 mg per liter of said chromate waste liquid.
8. (original): A process according to claim 1, wherein said chromium precipitation accelerating agent comprises MgCl_2 and is added to said chromate waste liquid such that magnesium of said MgCl_2 is in an amount of 200-500 mg per liter of said chromate waste liquid.
9. (original): A process according to claim 1, wherein said chromate waste liquid is stirred, after said adding of said chromium precipitation accelerating agent.
10. (original): A process according to claim 9, wherein said chromate waste liquid is stirred for a period of time from 0.5 to 2 hr.
11. (original): A process according to claim 1, wherein said chromate waste liquid comprises a zinc component, and wherein, after said adjusting, said first pH of said chromate waste liquid is decreased to a second pH that is 8 or higher, thereby decreasing a zinc concentration of said chromate waste liquid.
12. (original): A process according to claim 1, wherein said adjusting is conducted, while said chromate waste liquid is maintained at a temperature of 20°C or higher.
13. (original): A process according to claim 12, wherein said temperature is 25°C or higher.

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14. (original): A process according to claim 13, wherein said temperature is 30°C or higher.

15. (currently amended): A process according to claim 1, further comprising:
maintaining said chromate waste liquid at said first pH for a period of time of 0.5 hr or longer; and

adding a ~~high-molecular coagulant-flocculating agent~~ to said chromate waste liquid, thereby accelerating said precipitation of said chromium component.

16. (currently amended): A process according to claim 15, wherein said ~~high-molecular coagulant-flocculating agent~~ comprises polyacrylamide.

17. (original): A process according to claim 2, wherein said chromium precipitation accelerating agent comprises said calcium-containing inorganic compound, and wherein said precipitated chromium component is separated from said chromate waste liquid, and then said chromate waste liquid is neutralized with an acid that is reactive with a calcium component dissolved in said chromate waste liquid, thereby turning said dissolved calcium component into a calcium-containing precipitate.

18. (original): A process according to claim 2, wherein said chromium precipitation accelerating agent comprises said magnesium-containing inorganic compound, and wherein said precipitated chromium component is separated from said chromate waste liquid, then said chromate waste liquid is neutralized with an acid, and then a dissolved magnesium component is removed from said chromate waste liquid by a reverse osmosis or an ion exchange.

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19. (original): A process according to claim 18, wherein said acid is such that said dissolved magnesium component remains in a dissolved form even after said neutralization.
20. (original): A process according to claim 1, further comprising maintaining said chromate waste liquid at said first pH, while said chromate waste liquid is stirred.
21. (original): A process according to claim 1, wherein said first pH is from 9 to 12.5.
22. (original): A process according to claim 21, wherein said first pH is from 10 to 12.5.
23. (new): A process according to claim 1, wherein said first pH is from 10 to 12.5, and said first pH is maintained for a period of time to precipitate the chromium component.
24. (new): A process according to claim 1, wherein said chromium precipitation accelerating agent comprises $\text{Ca}(\text{OH})_2$.
25. (new): A process for treating a chromate waste liquid containing an organic acid component, said process comprising the sequential steps of:
 - (a) adding a chromium precipitation accelerating agent that comprises at least one selected from the group consisting of CaCl_2 , $\text{Ca}(\text{NO}_3)_2$, MgCl_2 , $\text{Mg}(\text{NO}_3)_2$, and MgSO_4 , to said chromate waste liquid; and
 - (b) adding a basic pH adjusting agent that comprises at least one compound selected from the group consisting of NaOH , KOH and LiOH , to a product of the step (a) to increase pH of said chromate waste liquid to have a first pH of 9 or higher and precipitating a chromium component from said chromate waste liquid.

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26. (new): A process according to claim 25, wherein said chromium precipitation accelerating agent of the step (a) comprises at least one of CaCl₂ and MgCl₂.
27. (new): A process according to claim 25, wherein said basic pH adjusting agent comprises NaOH.